

Claims

5 1. A dispersing agent for pigments or extenders based on acrylic acid alkyl ester polymers, wherein at least part of the ester groups of the polymers is reacted to form acid amides, characterised in that the dispersing agent is obtainable by the aminolysis of ester groups of the polymer by means of amines, wherein, for the aminolysis, at least one amine can be used from the group comprising a) amines of 10 general formula $\text{NH}_2 - \text{R}^1 - \text{NR}^2\text{R}^3$, wherein R^1 is a divalent alkylene radical comprising 2 - 4 carbon atoms and R^2 and R^3 are aliphatic and/or alicyclic alkyl radicals which comprise 1 - 12, preferably 1 - 6 carbon atoms and which can be the same or different, and b) amines of general formula $\text{NH}_2 - \text{R}^1 - \text{Z}$, wherein R^1 is a divalent alkylene radical comprising 2 - 4 carbon atoms and Z is a 5- or 6- 15 membered N-containing heterocycle which can comprise up to 2 nitrogen atoms or which can additionally comprise oxygen.

2. A dispersing agent of claim 1, characterised in that for the aminolysis of the ester groups of the polymer by means of amines one or more amines can also be 20 used from the group comprising c) saturated or unsaturated aliphatic amines comprising 6 - 22 carbon atoms, d) alicyclic amines comprising up to 6 carbon atoms, e) aryl-substituted alkylamines and f) polyoxyalkylene amines $\text{NH}_2\text{-R}^1\text{-(0- R}^2\text{-)x O - R}^3$, wherein R^1 is a divalent alkylene radical comprising 2 - 3 carbon atoms, R^2 is a divalent alkylene radical comprising 2 - 4 carbon atoms and R^3 is an 25 alkyl radical comprising 1 - 4 carbon atoms.

3. A dispersing agent of claim 1, wherein the polymer contains, as a comonomer, at least one further, different monomer comprising vinyl double bonds, preferably a monomer from the group comprising itaconic acid esters, maleic acid 30 esters, methacrylic acid esters, (meth)acrylic acid, styrene, alkyl vinyl ethers, vinyl acetate or mixtures of monomers from this group.

4. A dispersing agent of claim 1, wherein the alkyl radical of the acrylic acid ester contains 1 - 4 C-atoms.

5 5. A dispersing agent of claim 1, wherein a catalyst is used for aminolysis.

6. A dispersing agent of claim 1, wherein the polymer has a weight average molecular weight of 1000 – 50,000, preferably of 2000 – 20,000.

10 7. A dispersing agent of claim 1, wherein the product which is obtained by aminolysis with an amine of general formula $\text{NH}_2 - \text{R}^1 - \text{NR}^2\text{R}^3$ and/or $\text{NH}_2 - \text{R}^1 - \text{Z}$ is reacted to form a salt.

15 8. The use of a dispersing agent of claim 1 for the production of pigment concentrates, wherein the dispersing agent is homogenised together with the pigments and/or extenders to be dispersed optionally in the presence of organic solvents and/or water, optionally with binder vehicles and optionally with customary lacquer adjuvant substances.

20 9. The use of a dispersing agent of claim 1 for the production of a coating medium, wherein a binder vehicle, optionally a solvent, pigments and/or extenders, the dispersing agent and optionally adjuvant substances are dispersed together.

25 10. A process for producing a dispersing agent of claim 1, wherein an acrylic acid ester polymer is aminolysed with an amine, wherein at least part of the ester groups of the polymer is reacted to form acid amides and wherein for the aminolysis at least one amine can be used from the group comprising a) amines of general formula $\text{NH}_2\text{-R}^1 - \text{NR}^2\text{R}^3$, wherein R^1 is a divalent alkylene radical comprising 2 - 4 carbon atoms and R^2 and R^3 are aliphatic and/or alicyclic alkyl radicals comprising 1 - 12, preferably 1 – 6 carbon atoms which can be the same or different, and b) amines of general formula $\text{NH}_2\text{R}^1\text{-Z}$, wherein R^1 is a divalent alkylene radical

comprising 2 – 4 carbon atoms is and Z is a 5- or 6-membered N-containing heterocycle which can comprise up to 2 nitrogen atoms or which can additionally comprise oxygen.

5 11. A process for producing a dispersing agent according to claim 10,
characterized in that for the aminolysis one or more amines can also be used from
the group comprising c) saturated or unsaturated aliphatic amines comprising 6 – 22
carbon atoms, d) alicyclic amines comprising up to 6 carbon atoms, e) aryl-
substituted alkylamines and f) polyoxyalkylene amines $\text{NH}_2\text{-R}^1\text{-}(\text{O}-\text{R}^2\text{-})_x\text{-O-R}^3$,
10 wherein R^1 is a divalent alkylene radical comprising 2 - 3 carbon atoms, R^2 is a
divalent alkylene radical comprising 2 - 4 carbon atoms and R^3 is an alkyl radical
comprising 1 - 4 carbon atoms.